MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2022/2023

DBM5024 BUSINESS FINANCE

(All Sections/Groups)

24 NOVEMBER 2022
9.00 AM – 11.00 AM
(2 hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 6 pages with 2 sections.
2. Attempt **ALL** questions in Section A and Section B.
3. Please write all your answers for Section A on the OMR form provided and all answers for Section B in the Answer Booklet provided.
4. The formulae are given in the appendices.

SECTION A: MULTIPLE CHOICE QUESTIONS (20 Marks)

1. Which one of the following statements are **CORRECTLY** applies to sole proprietorship?
   A. The business entity has an unlimited life.
   B. The ownership can easily be transferred to another individual.
   C. The owner enjoys limited liability for the firm's debts.
   D. Obtaining additional equity is dependent on the owner's personal finances.

2. The shareholders of Synergy Bhd would benefit if the firm were to be acquired by Kirana. However, Synergy's board of directors rejects the acquisition offer. This is an example of _____.
   A. a corporate takeover
   B. a capital structure issue
   C. a working capital decision
   D. an agency conflict

3. Which one of the following occupations **BEST** fits into the corporate area of finance?
   A. Mortgage broker.
   B. Treasury bill analyst.
   C. Chief financial officer.
   D. Insurance risk manager.

4. Lab equipment is classified as _____.
   A. a net working capital item
   B. a current liability
   C. a current asset
   D. a tangible fixed asset

5. For the current year, Brilliant Bright has net income of RM40,800, net new equity of RM6,600, and an addition to retained earnings of RM31,500. What is the amount of the dividends paid?
   A. RM4,000
   B. RM2,700
   C. RM9,300
   D. RM72,300

6. Newly issued securities are sold to investors in which one of the following markets?
   A. Primary.
   B. Main.
   C. Secondary.
   D. Ace.

Continued...

7. Below are some of the voting rights that a common stockholder may own, **EXCEPT** for _____.
   A. stockholders elect directors
   B. cumulative voting
   C. boards are often staggered or "classified"
   D. pre-emptive voting

8. A dealer is an agent who _____.
   A. trades on the floor of an exchange for himself or herself
   B. buys and sells from inventory
   C. is ready to buy or sell at any time
   D. maintains an investor

9. The Chong Cakery Bhd has preferred stock outstanding that pays a RM5.80 dividend annually and sells for RM60 per share. What is the rate of return?
   A. 9.67 percent
   B. 10.34 percent
   C. 7.70 percent
   D. 8.23 percent

10. Botanic Park has a dividend growth rate of 4.5 percent, a market price of RM15 a share, and a required return of 9 percent. What is the amount of the last dividend this company paid?
   A. RM0.65
   B. RM0.68
   C. RM1.20
   D. RM1.35

11. "Indication that the extra amount may not be repeated in the future". This statement refers to _____.
   A. regular cash dividend
   B. extra cash dividend
   C. special cash dividend
   D. liquidating dividend

12. Which one of the following happens when the checks are mailed?
   A. Record date.
   B. Declaration date.
   C. Ex-dividend date.
   D. Payment date.

13. When a company buys back shares of its own stock, it is called as _____.
   A. open market
   B. tender offer
   C. targeted repurchase
   D. primary market

Continued...

14. Below are the advantages of paying dividends, **EXCEPT**:
    A. Cash dividends underscore good results and provide support to stock price.
    B. Dividends can reduce internal sources of funding.
    C. Stock price usually increases with a new or increased dividend.
    D. Dividends absorb excess cash and may reduce agency costs.

15. To reduce the number of shares outstanding, the company normally will proceed with _____.
    A. stock split
    B. reverse stock split
    C. multiple split
    D. direct split

16. The transaction motive refers to the need to hold cash _____.
    A. as a shelter for taxes
    B. for unexpected investment opportunities
    C. for everyday operations
    D. for emergency situations

17. Determining the probability that potential customers will not pay is called as the process of _____.
    A. credit analysis
    B. collection plan
    C. customer invoicing
    D. credit terms

18. Yunni Stationery keeps an extra RM500 in its checking account simply in case an emergency arises. Which type of motive for holding cash does this represent?
    A. Speculative.
    B. Float requirement.
    C. Transaction.
    D. Precautionary.

19. Zenxin Enterprise grants credit with terms of 5/15, net 45. The firm's customers shall have ___ days to pay in order to receive a _____ percent discount.
    A. 5; 10
    B. 5; 2
    C. 15; 5
    D. 15; 10

20. On any given day, Rehan Bhd mails out checks totaling RM4,100 that generally take 3 days to clear the bank. What is the amount of the disbursement float?
    A. RM4,100
    B. RM1,367
    C. RM10,000
    D. RM12,300

(Total: 20 marks)

Continued...

SECTION B: STRUCTURED QUESTIONS [80 Marks]

QUESTION 1

(a) MKM Bank pays 8.8 percent simple interest on its savings account balances, whereas GLG Bank pays 8.8 percent interest compounded annually. If Mohit made a deposit of RM5,000 in each bank, how much more money would Mohit earn from GLG Bank account at the end of six years? (8 marks)

(b) From her recent investment proposal, Joanne Leong is supposed to receive RM10,000 per year for five years. The appropriate interest rate that she will earn is 6.5 percent, with quarterly compounding.

(i) What is the future value of the payments if they are in the form of an ordinary annuity? (5 marks)
(ii) What is the future value of the payments if they are in the form of an annuity due? (5.5 marks)
(iii) Which has the highest future value, the ordinary annuity, or the annuity due? Justify your answer. (1.5 marks)

(Total: 20 marks)

QUESTION 2

(a) Ramona & Nikita Enterprises has bonds on the market making annual payments, with eight years to maturity, a par value of RM1,000, and selling for RM1,455. At this price, the bonds yield 5.9 percent. What must the coupon rate be on the bonds? (10 marks)

(b) Ayuni, a Finance Manager had been informed by her superior that their company needs to raise RM5 million for their upcoming project. They shall issue a 15-year bonds for this purpose. The required return on this bond issuance will be 9 percent in which it is a zero-coupon bond. This bond will have a par value of RM1,000.

(i) How many of the bonds would Ayuni need to issue to raise the RM5 million? (7 marks)
(ii) How much does Tommy, an investor will need to invest if he wants to buy 50 units of the bonds? (3 marks)

(Total: 20 marks)

Continued...

QUESTION 3

Year	Cash Flow (Sabah) RM	Cash Flow (Johor) RM
0	-292,000	-41,600
1	38,000	20,000
2	56,000	17,700
3	250,000	17,200
4	57,000	15,000

Serba Bina Sdn. Bhd is looking forward for an investment, which is a new branch next year. They however not yet to decide of the location, whether it should be in the state of Johor or Sabah. If Serba Bina require a return of 11 percent on your investment, answer the following questions:

a) If the company apply the NPV (Net Present Value) criterion, which state should they accept? Why? (11 marks)

b) If the company apply the payback period criterion, which state should they accept? Why? (8 marks)

c) Based on your answers in parts (a) and (b), which project will you finally choose? Why? (1 mark)

(Total: 20 marks)

QUESTION 4

(a) Below are some available information for Tenaga Harapan Bhd. early this year. Assume the company's tax rate is 21 percent, compute the WACC (weighted average cost of capital). (14 marks)

- Common stock: 575,000 shares outstanding, selling for RM81 per share; the beta is 1.04.
- Preferred stock: 30,000 shares of 3.4 percent preferred stock outstanding, a RM100 par value, currently selling for RM94 per share.
- Market: 7 percent market risk premium and 3.2 percent risk-free rate.

Continued...

(b) Ginger Industries stock has a beta of 1.08. The company just paid a dividend of RM0.85, and the dividends are expected to grow at 4 percent. The expected return on the market is 11.3 percent, and the risk-free rate is 3.4 percent. The most recent stock price for the company is RM72.

(i) Calculate the cost of equity using the DGM (dividend growth model) method. (3 marks)

(ii) Calculate the cost of equity using the SML (security market line) method. (3 marks)

(Total: 20 marks)

End of Paper

Appendix Formulae:

I. **The cash flow identity**
Cash flow from assets = Cash flow to creditors (bondholders)
+ Cash flow to stockholders (owners)

II. **Cash flow from assets**
Cash flow from assets = Operating cash flow
− Net capital spending
− Change in net working capital (NWC)
where
Operating cash flow = Earnings before interest and taxes (EBIT)
+ Depreciation − Taxes
Net capital spending = Ending net fixed assets − Beginning net fixed assets
+ Depreciation
Change in NWC = Ending NWC − Beginning NWC

III. **Cash flow to creditors (bondholders)**
Cash flow to creditors = Interest paid − Net new borrowing

IV. **Cash flow to stockholders (owners)**
Cash flow to stockholders = Dividends paid − Net new equity raised

I. **Symbols**
PV = Present value, what future cash flows are worth today
FV_t = Future value, what cash flows are worth in the future
r = Interest rate, rate of return, or discount rate per period typically , but not always, one year
t = Number of periods typically , but not always, the number of years
C = Cash amount

II. **Future value of C invested at r percent per period for t periods**
$FV_t = C \times (1 + r)^t$
The term $(1 + r)^t$ is called the *future value factor.*

III. **Present value of C to be received in t periods at r percent per period**
$PV = C/(1 + r)^t$
The term $1/(1 + r)^t$ is called the *present value factor.*

IV. **The basic present value equation giving the relationship between present and future value is**
$PV = FV_t/(1 + r)^t$

I. **Symbols**
PV = Present value, what future cash flows are worth today
FV_t = Future value, what cash flows are worth in the future at time t
r = Interest rate, rate of return, or discount rate per period—typically, but not always, one year
t = Number of periods—typically, but not always, the number of years
C = Cash amount

II. **Future value of C invested per period for t periods at r percent per period**
$FV_t = C \times [(1 + r)^t - 1]/r$
A series of identical cash flows paid for a set number of periods is called an annuity, and the term $[(1 + r)^t - 1]/r$ is called the *annuity future value factor.*

III. **Present value of C per period for t periods at r percent per period**
$PV = C \times \{1 - [1/(1 + r)^t]\}/r$
The term $\{1 - [1/(1 + r)^t]\}/r$ is called the *annuity present value factor.*

IV. **Present value of a perpetuity of C per period**
$PV = C/r$
A perpetuity has the same cash flow every period forever.

I. Finding the value of a bond

Bond value = $C \times [1 - 1/(1 + r)^t]/r + F/(1 + r)^t$

where

C = Coupon paid each period
r = Rate per period
t = Number of periods
F = Bond's face value

II. Finding the yield on a bond

Given a bond value, coupon, time to maturity, and face value, it is possible to find the implicit discount rate, or yield to maturity, by trial and error only. To do this, try different discount rates in the formula above until the calculated bond value equals the given bond value. Remember that increasing the rate *decreases* the bond value.

I. The general case

In general, the price today of a share of stock, P_0, is the present value of all of its future dividends, $D_1, D_2, D_3, \ldots$:

$$P_0 = \frac{D_1}{(1 + R)^1} + \frac{D_2}{(1 + R)^2} + \frac{D_3}{(1 + R)^3} + \cdots$$

where R is the required return.

II. Constant growth case

If the dividend is constant and equal to D, then the price can be written as:

$$P_0 = \frac{D}{R}$$

If the dividend grows at a steady rate, g, then the price can be written as:

$$P_0 = \frac{D_1}{R - g}$$

This result is called the *dividend growth model.*

III. Nonconstant Growth

If the dividend grows steadily after t periods, then the price can be written as:

$$P_0 = \frac{D_1}{(1 + R)^1} + \frac{D_2}{(1 + R)^2} + \cdots + \frac{D_t}{(1 + R)^t} + \frac{P_t}{(1 + R)^t}$$

where

$$P_t = \frac{D_t \times (1 + g)}{(R - g)}$$

IV. Valuation Using Multiples

For stocks that don't pay dividends (or have erratic dividend growth rates), we can value them using the PE ratio and/or the price-sales ratio:

P_t = Benchmark PE ratio $\times$ EPS_t
P_t = Benchmark price-sales ratio $\times$ Sales per $share_t$

V. The required return, R, can be written as the sum of two things:

$$R = D_1/P_0 + g$$

where D_1/P_0 is the *dividend yield* and g is the *capital gains yield* (which is the same thing as the growth rate in dividends for the steady growth case).

I. **The cost of equity, R_E**
   A. Dividend growth model approach (from Chapter 7):

      $$R_E = D_1/P_0 + g$$

      where D_1 is the expected dividend in one period, g is the dividend growth rate, and P_0 is the current stock price.
   B. SML approach (from Chapter 11):

      $$R_E = R_f + \beta_E \times (R_M - R_f)$$

      where R_f is the risk-free rate, R_M is the expected return on the overall market, and β_E is the systematic risk of the equity.

II. **The cost of debt, R_D**
   A. For a firm with publicly held debt, the cost of debt can be measured as the yield to maturity on the outstanding debt. The coupon rate is irrelevant. Yield to maturity is covered in Chapter 6.
   B. If the firm has no publicly traded debt, then the cost of debt can be measured as the yield to maturity on similarly rated bonds (bond ratings are discussed in Chapter 6).

III. **The weighted average cost of capital, WACC**
   A. The firm s WACC is the overall required return on the firm as a whole. It is the appropriate discount rate to use for cash flows similar in risk to the overall firm.
   B. The WACC is calculated as:

      $$\text{WACC} = (E/V) \times R_E + (D/V) \times R_D \times (1 - T_C)$$

      where T_C is the corporate tax rate, E is the *market* value of the firm s equity, D is the *market* value of the firm s debt, and $V = E + D$. Note that E/V is the percentage of the firm s financing (in market value terms) that is equity, and D/V is the percentage that is debt.